PATENT COOPERATION TREA

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER		
R 43494	ACTION	as well	see Form PCT/ISA/220 as, where applicable, item 5 below.
International application No.	International filing date (day/monti		(Earliest) Priority Date (day/month/year)
PCT/EP2004/004059	16/04/2004	• ,	17/04/2003
Applicant		· · · · · · · · · · · · · · · · · · ·	
IGENEON KREBS-IMMUNTHERAPI	IE FORSCHUNGS- UND		
This International Search Report has been according to Article 18. A copy is being tra	ansimited to the international Bureau	l .	nority and is transmitted to the applicant
This International Search Report consists It is also accompanied by	of a total of <u>7</u> she a copy of each prior art document ci		report.
— —	ess offerwise fidicated dilder this ite	em.	is of the international application in the
ano Addionty (Hak	e 23.1(b)).		ation of the international application furnished to
b. X With regard to any nucleo	tide and/or amino acid sequence	disclosed i	n the international application, see Box No. I.
2. Certain claims were foun	nd unsearchable (See Box II).		- W 1 - 2
3. Unity of invention is lack	king (see Box III).		
4. With regard to the title ,			
X the text is approved as sub			
the text has been establish	ned by this Authority to read as follow	vs:	
5. With regard to the abstract,			
X the text is approved as sub	mitted by the applicant.		
the text has been established	ed, according to Rule 38 2(b), by this	s Authority onal search	as it appears in Box No. IV. The applicant a report, submit comments to this Authority.
6. With regards to the drawings,			
a. the figure of the drawings to be pu		o	
as suggested by the			
	Authority, because the applicant faile Authority, because this figure better		
	published with the abstract.	cnaracteri	zes the invention.

International application No.

PCT/EP2004/004059

a. type of material X a sequence listing table(s) related to the sequence listing b. format of material X in written format in computer readable form c. time of filling/furnishing X contained in the international application as filed filed together with the international application in computer readable form furnished subsequently to this Authority for the purpose of search	Box No.	. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)
a sequence listing table(s) related to the sequence listing b. format of material	I. Wi inv	ith regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed rention, the international search was carried out on the basis of:
b. format of material X	a.	type of material
b. format of material X		X a sequence listing
in computer readable form c. time of filing/furnishing X contained in the international application as filed filed together with the international application in computer readable form furnished subsequently to this Authority for the purpose of search In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been or furnished, the required statements that the information in the subsequent or additional copies is identical to that in tapplication as filed or does not go beyond the application as filed, as appropriate, were furnished. Additional comments:		table(s) related to the sequence listing
in computer readable form c. time of filing/furnishing X	b.	format of material
c. time of filing/furnishing X contained in the international application as filed filed together with the international application in computer readable form furnished subsequently to this Authority for the purpose of search In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been or furnished, the required statements that the information in the subsequent or additional copies is identical to that in tapplication as filed or does not go beyond the application as filed, as appropriate, were furnished. Additional comments:		X in written format
contained in the international application as filled filled together with the international application in computer readable form furnished subsequently to this Authority for the purpose of search In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been or furnished, the required statements that the information in the subsequent or additional copies is identical to that in trapplication as filled or does not go beyond the application as filled, as appropriate, were furnished. Additional comments:		in computer readable form
contained in the international application as filled filled together with the international application in computer readable form furnished subsequently to this Authority for the purpose of search In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been or furnished, the required statements that the information in the subsequent or additional copies is identical to that in trapplication as filled or does not go beyond the application as filled, as appropriate, were furnished. Additional comments:	c.	time of filing/furnishing
filed together with the international application in computer readable form furnished subsequently to this Authority for the purpose of search In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished. Additional comments:		
In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished. Additional comments:		
application as filed or does not go beyond the application as filed, as appropriate, were furnished. Additional comments:		
		In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
	Add	ditional comments:
		en de la companya de La companya de la co

International Application No PCT/EP2004/004059

a. classification of subject matter IPC 7 A61K39/395 C07K16/42 C12N15/63 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 7 A61K Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, BIOSIS, WPI Data, PAJ C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Category ° Relevant to claim No. WO 03/097663 A (HIMMLER GOTTFRIED 1 - 34KIRCHEIS RALF (AT); LOIBNER HANS (AT); IGENEON KRE) 27 November 2003 (2003-11-27) the whole document χ EP 0 759 442 A (ONCOGEN) 1 - 3426 February 1997 (1997-02-26) the whole document Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents: *T* later document published after the international filing date 'A' document defining the general state of the art which is not considered to be of particular relevance or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-"O" document referring to an oral disclosure, use, exhibition or other means ments, such combination being obvious to a person skilled *P* document published prior to the international filing date but later than the priority date claimed in the art. "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 25 November 2004 01/12/2004 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016 Hermann, P

5

International Application No
PCT/EP2004/004059

C.(Continuatio	on) DOCUMENTS CONSIDERED TO BE RELEVANT	/EP2004/004059
	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
		Tooran to claim 140.
x	SALEH M ET AL: "Generation of a human anti-idiotypic antibody that mimics the GD2 antigen" JOURNAL OF IMMUNOLOGY, THE WILLIAMS AND WILKINS CO. BALTIMORE, US, vol. 151, no. 6, 15 September 1993 (1993-09-15), pages 3390-3398, XP002091381 ISSN: 0022-1767 the whole document	1-34
x	BRUMEANU T -D ET AL: "Engineering of doubly antigenized immunoglobulins expressing T and B viral epitopes" IMMUNOTECHNOLOGY (AMSTERDAM), vol. 2, no. 2, 1996, pages 85-95, XP004052673 ISSN: 1380-2933 abstract page 89, right-hand column, paragraph 2 - page 95, left-hand column, paragraph 2	1-34
x	DE 100 59 930 A (FISCHER PETER; UTTENREUTHER FISCHER MARTINA (DE)) 29 May 2002 (2002-05-29) paragraph '0005! - paragraph '0007!; figure 1	1-34
A	EP 0 285 059 A (WISTAR INST) 5 October 1988 (1988-10-05) the whole document	1-34
	WAXENECKER G ET AL: "QUALITATIVE AND QUANTITATIVE DISSECTION OF THE IMMUNE RESPONSE TO THE CANCER VACCINE CANDIDATES IGN101 AND IGN301" PROCEEDINGS OF THE ANNUAL MEETING OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH, NEW YORK, NY, US, vol. 43, March 2002 (2002-03), page 560, XP001154274 ISSN: 0197-016X abstract	1-34
	WALLICK C S ET AL: "GLYCOSYLATION OF A VH RESIDUE OF A MONOCLONAL ANTIBODY AGAINST ALPHA(1-6) DEXTRAN INCREASES ITS AFFINITY FOR ANTIGEN" JOURNAL OF EXPERIMENTAL MEDICINE, TOKYO, JP, vol. 168, September 1988 (1988-09), pages 1099-1109, XP000983430 ISSN: 0022-1007 the whole document	1-34
	,	
	ontinuation of second sheet) (January 2004)	

5

International Application No
PCT/EP2004/004059

		PCT/EP2004/004059
	tion) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A /	WO 00/41722 A (IGENEON GMBH; LOIBNER HANS (AT); ECKERT HELMUT (CH)) 20 July 2000 (2000-07-20) the whole document	1-34
A \int	WO 93/24647 A (SANDOZ AG; SCHOLZ DIETER (AT); JAKSCHE HERBERT (AT); JANZEK EVELYNE () 9 December 1993 (1993-12-09) the whole document	1-34
A	WO 01/35989 A (HIMMLER GOTTFRIED; LOIBNER HANS (AT); IGENEON KREBS IMMUNTHERAPIE FO) 25 May 2001 (2001-05-25) the whole document	1-34
	Bank Jank som benn som	
Ì		
		: · · · · · · · · · · · · · · · · · · ·

5

formation on patent family members

International Application No PCT/EP2004/004059

					004/004059
Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 03097663	A	27-11-2003	WO	03097663 A2	27-11-2003
EP 0759442	 А	26-02-1997	US	4918164 A	17-04-1990
			US	5614610 A	25-03-1997
			ΕP	0759442 A1	26-02-1997
			ĀΤ	151079 T	15-04-1997
			AU	630592 B2	
			AU	2207788 A	05-11-1992
			CA		16-03-1989
			DE	1339816 C	14-04-1998
			DE	3855850 D1	07-05-1997
			DK	3855850 T2	20-11-1997
				500888 A	11-03-1989
			EP	0306995 A2	15-03-1989
			ES	2102978 T3	16-08-1997
			FΙ	884114 A	11-03-1989
			GR	3023725 T3	30-09-1997
			HU	47973 A2	28-04-1989
			IL	87692 A	12-04-1994
			JP	2000494 A	05-01-1990
			NO	88 4024 A ,B,	13-03-1989
			NZ	226129 A	23-12-1991
			OA	8952 A	30-11-1990
			PT	88459 B	29-01-1993
			US	5766588 A	16-06-1998
			ZA	8806752 A	30-05-1990
DE 10059930	Α	29-05-2002	DE	10059930 A1	29-05-2002
			WO	02087611 A2	07-11-2002
EP 0285059	Α	05-10-1988	US	4971792 A	20-11-1990
•			ΑT	113845 T	15-11-1994
			CA	1303980 C	23-06-1992
			DE	3852054 D1	15-12-1994
			DE	3852054 T2	18-05-1995
			EP	0285059 A2	05-10-1988
				63279169 A	16-11-1988
			JP	032/9109 A	
			JP US	5182192 A	26-01-1993
 WO 0041722	A				26-01-1993
 WO 0041722	 A	20-07-2000	US AT AU	5182192 A	
 WO 0041722	Α	20-07-2000	US AT	5182192 A 219687 T	26-01-1993
 WO 0041722	Α	 20-07-2000	US AT AU	5182192 A 	26-01-1993
 WO 0041722	A	 20-07-2000	AT AU AU -CA	5182192 A 219687 T 768515 B2 2796400 A 2360382 A1	26-01-1993
 WO 0041722	А	20-07-2000	AT AU AU -CA CN	5182192 A 219687 T 768515 B2 2796400 A 2360382 A1 1344167 T	26-01-1993
 WO 0041722	.— А	20-07-2000	AT AU AU -CA CN CZ	5182192 A 219687 T 768515 B2 2796400 A 2360382 A1 1344167 T 20012581 A3	26-01-1993
 WO 0041722	Α	20-07-2000	AT AU AU -CA -CN CZ DE	5182192 A 219687 T 768515 B2 2796400 A 2360382 A1 1344167 T 20012581 A3 50000243 D1	26-01-1993 15-07-2002 18-12-2003 01-08-2000 20-07-2000 10-04-2002 16-01-2002 01-08-2002
 WO 0041722	А	 20-07-2000	AT AU AU CA CN CZ DE DK	5182192 A 219687 T 768515 B2 2796400 A 2360382 A1 1344167 T 20012581 A3 50000243 D1 1140168 T3	26-01-1993 15-07-2002 18-12-2003 01-08-2000 20-07-2000 10-04-2002 16-01-2002 01-08-2002 30-09-2002
 WO 0041722	А	20-07-2000	AT AU AU -CA CN CZ DE DK EE	5182192 A 219687 T 768515 B2 2796400 A 2360382 A1 1344167 T 20012581 A3 50000243 D1 1140168 T3 200100366 A	26-01-1993 15-07-2002 18-12-2003 01-08-2000 20-07-2000 10-04-2002 16-01-2002 01-08-2002 30-09-2002 15-10-2002
 WO 0041722	A	20-07-2000	AT AU -CA CN CZ DE DK EE WO	5182192 A 219687 T 768515 B2 2796400 A 2360382 A1 1344167 T 20012581 A3 50000243 D1 1140168 T3 200100366 A 0041722 A1	26-01-1993
	A	20-07-2000	AT AU AU CA CN CZ DE DK EE WO EP	5182192 A 219687 T 768515 B2 2796400 A 2360382 A1 1344167 T 20012581 A3 50000243 D1 1140168 T3 200100366 A 0041722 A1 1140168 A1	26-01-1993
	A	20-07-2000	AT AU AU .CA CN CZ DE DK EE WO EP	5182192 A 219687 T 768515 B2 2796400 A 2360382 A1 1344167 T 20012581 A3 50000243 D1 1140168 T3 200100366 A 0041722 A1 1140168 A1 1230932 A2	26-01-1993
WO 0041722	A	20-07-2000	AT AU AU -CA CN CZ DE DK EE WO EP EP	5182192 A 219687 T 768515 B2 2796400 A 2360382 A1 1344167 T 20012581 A3 50000243 D1 1140168 T3 200100366 A 0041722 A1 1140168 A1 1230932 A2 2177509 T3	26-01-1993 15-07-2002 18-12-2003 01-08-2000 20-07-2000 10-04-2002 16-01-2002 01-08-2002 30-09-2002 15-10-2002 20-07-2000 10-10-2001 14-08-2002 16-12-2002
WO 0041722	A	20-07-2000	AT AU -CA CN CZ DE DK EE WO EP EP ES HR	5182192 A 219687 T 768515 B2 2796400 A 2360382 A1 1344167 T 20012581 A3 50000243 D1 1140168 T3 200100366 A 0041722 A1 1140168 A1 1230932 A2 2177509 T3 20010526 A1	26-01-1993 15-07-2002 18-12-2003 01-08-2000 20-07-2000 10-04-2002 16-01-2002 01-08-2002 30-09-2002 15-10-2002 20-07-2000 10-10-2001 14-08-2002 16-12-2002 31-08-2002
WO 0041722	A	20-07-2000	AT AU -CA CN CZ DE DK EE WO EP EP ES HR	5182192 A 219687 T 768515 B2 2796400 A 2360382 A1 1344167 T 20012581 A3 50000243 D1 1140168 T3 200100366 A 0041722 A1 1140168 A1 1230932 A2 2177509 T3 20010526 A1 0200527 A2	26-01-1993
WO 0041722	A	20-07-2000	AT AU -CA -CN CZ DE DK EE WO EP ES HR HU ID	5182192 A 219687 T 768515 B2 2796400 A 2360382 A1 1344167 T 20012581 A3 50000243 D1 1140168 T3 200100366 A 0041722 A1 1140168 A1 1230932 A2 2177509 T3 20010526 A1 0200527 A2 30223 A	26-01-1993 15-07-2002 18-12-2003 01-08-2000 20-07-2000 10-04-2002 16-01-2002 01-08-2002 30-09-2002 15-10-2002 20-07-2000 10-10-2001 14-08-2002 16-12-2002 31-08-2002 29-06-2002 15-11-2001
WO 0041722	A	20-07-2000	AT AU -CA CN CZ DE DK EE WO EP ES HR HU JP	5182192 A 219687 T 768515 B2 2796400 A 2360382 A1 1344167 T 20012581 A3 50000243 D1 1140168 T3 200100366 A 0041722 A1 1140168 A1 1230932 A2 2177509 T3 20010526 A1 0200527 A2 30223 A 2002534481 T	26-01-1993
WO 0041722	A	20-07-2000	AT AU -CA CN CZ DE DK EE WO EP ES HR HU JP NO	5182192 A 219687 T 768515 B2 2796400 A 2360382 A1 1344167 T 20012581 A3 50000243 D1 1140168 T3 200100366 A 0041722 A1 1140168 A1 1230932 A2 2177509 T3 20010526 A1 0200527 A2 30223 A 2002534481 T 20013093 A	26-01-1993
WO 0041722	A	20-07-2000	AT AU -CA CN CZ DE DK EE WO EP ES HR HU JP	5182192 A 219687 T 768515 B2 2796400 A 2360382 A1 1344167 T 20012581 A3 50000243 D1 1140168 T3 200100366 A 0041722 A1 1140168 A1 1230932 A2 2177509 T3 20010526 A1 0200527 A2 30223 A 2002534481 T	26-01-1993

ormation on patent family members

international Application No PCT/EP2004/004059

					2001/00/005
Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 0041722	Α		SI	1140168 T1	31-10-2002
			SK	9642001 A3	05-03-2002
			TR	200102034 T2	21-11-2001
WO 9324647		09-12-1993		170214 T	15 05 1000
NO 3324047	^	09-12-1993	AT AU	179214 T	15-05-1999
			AU	678160 B2 4068893 A	22-05-1997
			CA	2134751 A1	30-12-1993
			CZ	9402851 A3	09-12-1993
			DE	69324584 D1	17-05-1995 27-05-1999
			DE	69324584 T2	
			DK	644947 T3	23-09-1999
			WO	9324647 A1	01-11-1999
			EP	0644947 A1	09-12-1993 29-03-1995
			ES	2133395 T3	16-09-1999
			FI	945485 A	22-11-1994
			GR	3030701 T3	30-11-1999
			HU	71311 A2	28-11-1995
			JP	11178594 A	06-07-1999
			ĴΡ	7507207 T	10-08-1995
			NO	944443 A	20-01-1995
			NZ	252161 A	28-10-1996
			PL	175651 B1	29-01-1999
			RU	2208642 C2	20-07-2003
			SG	50721 A1	21-11-2000
			SK	139894 A3	11-07-1995
			US	2002146410 A1	10-10-2002
WO 0135989	Α	25-05-2001	AT	409086 B	27-05-2002
			AT	192799 A	15-10-2001
			ΑT	267020 T	15-06-2004
			AU	2357201 A	30-05-2001
			BR	0015597 A	23-07-2002
			~CA	2391927 A1	25-05-2001
			CN	1390138 T	08-01-2003
			CZ	20021707 A3	16-10-2002
			DE	50006526 D1	24-06-2004
			DK	1229936 T3	30-08-2004
			EE	200200252 A	16-06-2003
			WO	0135989 A2	25-05-2001
			EP	1229936 A2	14-08-2002
			HU	0204216 A2	28-04-2003
			JP	2003514028 T	15-04-2003
			NO NZ	20022333 A	03-06-2002
			PL	518669 A	29-08-2003
			PT PT	356770 A1	12-07-2004
			SI	1229936 T 1229936 T1	30-09-2004
			SK	6542002 A3	31-08-2004 06-11-2002
			TR	200401267 T4	21-07-2004